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EXAMINER

DURAN, ARTHUR D

ART UNIT PAPER NUMBER

3622

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/773,914

Applicant(s)

SAITO ET AL.

Examiner

Arthur Duran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-39 have been examined.

Response to Amendment

2. The Amendment filed on 5/22/06 is insufficient to overcome the prior rejection.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/22/06 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-17 and 19-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tracy (5,979,757) in view of Vela (4,882,724).

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Claim 1, 2, 3, 4, 17, 19, 20, 23, 24, 28, 29, 35, 37, 38, 39: Tracy discloses an electronic coupon sending/collecting method, system, device for sending/collecting an electronic coupon to/from a radio portable terminal by using a radio LAN, the method comprising the steps of:

(a) requesting a notification of a terminal identifier of the radio portable terminal from a radio base station of the radio LAN to the radio portable terminal through the radio LAN (col 1, lines 20-36; col 2, lines 56-64);

(b) receiving the notification of the terminal identifier of the radio portable terminal from the radio portable terminal at the radio base station through the radio LAN in response to the step (a) (col 1, lines 20-36; col 2, lines 56-64);

(c) requesting a check of whether the radio portable terminal of the terminal identifier notified by the step (b) is an electronic coupon sending/collecting target or not, from the radio base station to a server device (col 9, lines 55-60; col 9, lines 27-30);

(d) checking whether the radio portable terminal of the terminal identifier notified by the step (b) is the electronic coupon sending/collecting target or not at the server device, and notifying a result of the check from the server device to the radio base station in response to the step (c) (col 9, lines 55-60; col 9, lines 27-30); and

(e) carrying out processing for sending/collecting the electronic coupon at the radio base station with respect to the radio portable terminal through the radio LAN, when the result of the check notified by the step (d) indicates that the radio portable terminal of the terminal identifier notified by the step (b) is the electronic coupon sending/collecting target (col 10, lines 9-15; col 9, lines 27-30).

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Tracy further discloses a server device for managing information regarding the electronic coupon (Fig. 1; col 12, lines 50-55).

Tracy further discloses a processing unit configured to carry out a processing for receiving any new electronic coupon issued by the store, a processing for using any stored electronic coupon that is usable at the store, and a processing for deleting any used electronic coupon from the storage unit, with respect to the radio base station through the radio LAN using the communication unit (col 12, line 50-col 14, line 2).

Tracy further discloses sending an electronic coupon automatically from one radio base station arranged at one location in the facility to the radio portable terminal that has moved into a covered area of the one radio base station by using the radio LAN (col 9, lines 25-30; col 9, lines 55-60; col 10, lines 9-14); and

collecting the electronic coupon from the radio portable terminal at another radio base station arranged at another location in the facility by using the radio LAN (col 5, lines 46-53; Fig. 1; col 6, lines 25-51).

Tracy further discloses a plurality of radio base stations of a radio LAN are arranged at a plurality of locations inside the facility and the plurality of radio base stations are connected to a server device through a local network (Fig. 1; col 5, lines 45-57).

Tracy further discloses (c) recording and managing a management information containing the terminal identifier notified at the step (b) (col 14, lines 3-48) and information regarding an arranged location of said each radio base station (col 5, lines 46-53; Fig. 1; col 6, lines 25-51) and notifying the terminal identifier at the step (b), at the server device (col 18, lines 13-21; col 14, lines 18-29; col 14, lines 54-65; col 9, lines 55-61).

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Tracy does not explicitly disclose information regarding an arranged location of said each radio base station which notified the terminal identifier at the step (b), at the server device.

However, Tracy further discloses multiple radio base stations (col 5, lines 50-56) and providing direction/location information to service units (col 7, lines 5-17) and providing location information of items (col 10, lines 49-55) and that radio base stations can be in different stores (col 6, lines 7-14) keeping track of service desk locations (col 11, lines 53-58) identifying the location of all store shoppers and employees (col 12, lines 45-50) providing the locations of service centers (col 12, lines 63-67) and providing item information and location based upon shopper activity history (col 14, lines 18-29; col 14, lines 54-65) and providing location of items based upon other items of interest to the user (col 16, lines 43-54) and tracking customer preferences and activities (col 9, lines 5-17) including dynamically determining the user's preferences (col 9, lines 55-61) and that the store goods in the store are organized intelligently in terms of their placement (col 15, lines 1-8; col 15, line 65-col 16, line 3) and providing location specific messages to the user (col 18, lines 13-21).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add Tracy's providing location specific information to the user to Tracy's multiple radio base stations and Tracy's forming a dynamic profile of user activity and Tracy's organized store such that Tracy tracks what base stations provide information to the user in order to form a profile of user areas of interest in the store. One would have been motivated to do this so that a better preference profile of the user is made and better targeting of the user is possible.

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Tracy further discloses a coupon identifier (col 9, lines 26-28; col 12, lines 50-55; col 13, lines 1-5). Electronic coupons and coupon tracking and management imply a way to identify the coupon.

However, Tracy discloses the utilization of a radio LAN (col 1, lines 30-37; col 3, lines 40-49; col 4, lines 60-67).

Tracy further discloses that the communications between the portable terminal and the central host occur over radio (col 3, lines 37-50).

Tracy further discloses that the the communications can occur over a LAN or a WAN or a combination of a LAN or WAN (col 3, lines 37-50). Therefore, the features, communication interactions between devices, and diagrams of communications throughout Tracy are disclosed by Tracy as operable over a LAN.

Tracy further discloses that the portable terminal is uniquely identified and that this information is stored and transmitted (col 1, lines 20-36; col 2, lines 56-64; col 8, lines 24-30; col 11, lines 49-67; col 12, lines 45-50). Notice that to identify the location of each shopper, each portable terminal is tracked as to its identity and its location.

Tracy further discloses electronic coupon transmittal and verification (col 11, lines 4-10; col 17, lines 10-17 and col 18, line 1-3).

Additionally, Tracy discloses in portable terminals in communication with base stations via radio and that the base stations are in communication with a central computer via a different non-radio network (Fig. 1, item 12 is the portable terminal, item 13 is base station, item 14 is the central computer, item 16 is an non-radio network or Ethernet LAN).

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Also, Tracy discloses the utilization of LAN radio networks:

“These terminal systems may also be provided with wireless communication radio systems such as Symbol Technologies, Inc. local area network radio system PECTRUM24.TM.". The SPECTRUM24.TM. radio network system permits hand-held terminals to share and retrieve data in the proximity of local area networks with a central host” (col 1, lines 28-36);

(3) The portable terminal of the present invention employs a wireless communication radio for communicating data to a central computer over a wireless communication network. The network could be either a local area network ("LAN"), such as Symbol's SPECTRUM24.TM. spread spectrum frequency hopping communication network, or a wide area communication network system ("WAN") such as those employing a cellular digital packet data (CDPD) communication protocol, or a combination of LAN and WAN systems (col 3, lines 38-50);

(12) In a preferred embodiment of the present invention, a portable terminal having an integrated machine code reader and a radio is provided with a graphical user interface such as a "web browser." The terminal is provided with a display for illustrating help and instructional files associated with a selected item identified with the machine code reader. Thus, a warehouse clerk who reads a bar code from a box of potato chips will automatically retrieve from the central host an instruction file instructing the person where to forward the package, or in an alternative embodiment, an airplane mechanic will be provided with repair instructions from a central host for an engine part which is marked with a machine readable code. In an alternative embodiment, a consumer using a hand-held terminal in a self-scanning application of

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the present invention (sometimes referred to as self-shopping or self-checkout) receives marketing, pricing, and additional information from a central host for products she has scanned with her portable terminal” (col 2, lines 11-30).

Tracy discloses that the portable terminal is connected to the central host and that the central host utilizes a different, non-radio network:

“(4) Data collected with the portable terminal is communicated to a central host. In a preferred embodiment, the central host performs most of the computing functions, thereby reducing the computational memory and power requirements of the portable terminals communicating with the system. The central host is preferably connected to other remote networks through high speed communication links such as commercially available T1, T2 or T3 type telephone connections. Through such connections, the central host may communicate with third party servers employing standard TCP/IP and other standardized communication protocols to transmit/retrieve data (col 3, lines 48-60);

(16) In the preferred embodiment illustrated in FIG. 1, portable terminals 12A, 12B, 12C, 12D and 12E in location 10 communicate to a central host 14 through multi-access points 13A and 13B. As described above, the terminals communicate in the local area network 10 with a SPECTRUM24.TM. network. The network provides a transparent wireless connection to an Ethernet LAN 16 through multiple access points 13A and 13B. Preferably, each of the access points is compatible with the Simple Network Management Protocol (SNMP) (col 5, lines 47-57);

(17) SPECTRUM24.TM. employs a frequency hopping modulation technique that offers a high-capacity network by using multiple access points which may be connected to an

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existing wired LAN backbone. The system employs more than 70 non-overlapping frequencies which minimize the probability that one cell will operate on the same frequency at the same time as another cell. The system is designed to work in the 2 to 2.5 Ghz frequency band (col 5, lines 57-65);

(18) Data collected by the central host 14 through the Ethernet LAN backbone 16 (FIG. 1) is processed locally. To the extent the received data requires a response, the central host retrieves data, processes information and retransmits data to the portable terminals. In the event the terminal's request should require the retrieval of data not stored on the central host 14, the central host 14 may retrieve data from external sources such as IP addressable servers 40 and 50 through a wide area communication network 30" (col 5, line 65-col 6, line 8).

Also, Vela discloses in portable terminals in communication with base stations via radio and that the base stations are in communication with a central computer via a different non-radio network:

"A communication system for a marketing area locates a light signal generating system and a master computer at a control center and delivers message bearing light signals over optical channels to predetermined subdivisions of the marketing area. . .

The relay units disclosed have a computer which operates under the control of the master computer, a signal receiving system and various message signal storage facilities as well as a message transmission system that includes a visual display device and an audio transmission device (Abstract);

(220) In the preferred embodiment disclosed herein, the various signals are generated and transmitted as light signals. It will be evident to those skilled in the art, however, that radio

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frequency (rf) generation and transmission techniques may be used in lieu thereof in accord with certain aspects of the invention” (col 40, lines 50-56);

(125) The Shopping List Data File is copied into memory 37 of the main or master computer 24 by the operating program when the system 22 is first brought "on line". Thereafter, as soon as a relay unit is energized and is in or enters a subdivision to which the shopping list signals are sent, the Shopping List Data File is totally copied into main memory of the unit computer;

(126) It may be generally said, that the transmissions of the data signals between the main computer and its peripherals and the the generating system 25 are by preference accomplished in the burst modes of operation known to those skilled in the art. As such, large amounts of data may be transferred in short periods of time” (col 25, lines 5-20).

Vela discloses uniquely identifying each cart (Fig. 4b).

Vela discloses that the stations cover different marketing areas or areas of the store:

“(4) Reference is now made to the drawings and more particularly to FIG. 1. Here, a system for communicating with shoppers is generally designated at 22. In an area control center 23, it includes a computer 24 and a light signal generating system 25 that is controlled by the computer 24 for generating message bearing signals for delivery to the marketing area. The system 22 has a signal delivery system 26 which is connected with the generating system 25 and which is used for passing the generated signals to a marketing area that is generally designated at 33 in FIG. 1 and show in greater detail in FIG. 5” (col 5, lines 50-60).

Vela discloses that user position, location, and path is tracked (Fig. 11 and below):

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“(79) This file is maintained in the disk storage of the control center computer and is copied to the main memory of the master computer as soon as operation of the system operating program for the control center computer is initiated. It contains data representing and distinguishing the shopping carts (relay units) and representing the x,y coordinate location of each such cart (relay unit) in the marketing area (col 18, lines 50-57);

(86) This file is stored on the disk storage of the control center computer and is copied into main memory of the master computer as soon as operation of the system operating program for the master computer is initiated.

(87) It contains data identifying each signal that is contemplated for delivery to the signal generating system in the control center area and also contains data indicating each and every subdivision address (x,y coordinates) in the marketing area to which the signal is contemplated for distribution during the operating cycle” (col 19, lines 11-22).

Vela discloses sending promotions to the user:

“(19) Other process aspects of the invention have to do with communicating with the shopper with the view to promoting product items that are on display and available for purchase in the marketing area. Here provisions are made for passing the message bearing signals into a predetermined zone in which they are detectable by the relay units and whereat the message is thereby transmitted at the point of product selection” (col 3, lines 50-57).

Vela further discloses that the base station cover different areas (Fig. 6; Fig. 13, item 157).

Vela further discloses that the user's route is tracked (Fig. 11).

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Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add Vela's further positioning information on the user to Tracy's profiling a user and providing a user with location relevant information. One would have been motivated to do this in order to better provide a user with relevant information.

Additionally, Tracy discloses communications to determine the unique terminal identifier for the portable terminal:

“(82) Each unit is provided with a unique IP address. A consumer who sends out audio data or an assistance request may receive audio assistance. In a preferred embodiment, a consumer selects the help link associated with any of the selection keys, as illustrated in FIGS. 7B and 7E, or selects an audio link as illustrated in FIG. 7D. This selection generates a help request command to the controller which forwards the request to a service desk, which may be located at a point-of-sale terminal location 170. Once the clerk responds to the message request, the message request, the clerk opens a voice channel with the consumer which provides for a telephone type communication. Although the data is transmitted using packed data communication techniques using the portable terminal IP address, the communication networks described above provide for adequate throughputs to establish a real time communication link. Thus, if a consumer needs assistance in retrieving an item from a top shelf or has injured himself, he can communicate his message directly to a customer service attendant” (col 11, lines 49-67).

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Tracy discloses that the network is an independent radio network (col 1, lines 21-36).

Tracy further discloses that the network can be a radio network independent from public communications or provided by communications providers (col 2, lines 35-40; col 6, lines 20-25). Tracy further discloses utilizing different networks or a combination of different types of networks (col 3, lines 38-50).

Tracy further discloses sending an electronic coupon automatically from one radio base station arranged at one location in the facility to the radio portable terminal that has moved into a covered area of the one radio base station by using the radio LAN (col 9, lines 25-30; col 9, lines 55-60; col 10, lines 9-14); and Tracy further discloses electronic coupon transmittal and verification (col 11, lines 4-10; col 17, lines 10-17 and col 18, line 1-3).

Notice in the above citations that Tracy transmits electronic coupons to the user.

Also, notice from the above citations that it is stored in a database whether the customer wants to receive electronic coupons or not. And, it is further disclosed that information can be transmitted to the user based on what information the customer has indicated he wants to receive or based on what preferences the customer has indicated. Hence, Tracy discloses an independent radio network for a area where the portable terminal is uniquely identified and a check is made as to whether or not to send information to that terminal and where the information can be electronic coupons.

Tracy further discloses sending information to the user based on the identified portable terminal (col 9, lines 5-col 10, line 40).

Tracy does not explicitly disclose that the information is sent to the user based on which radio base station the user is near.

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However, Vela disclose that the information is sent to the user based on which radio base station the user is near (Fig. 5; Fig. 6; Fig. 11; Abstract)

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add Vela's further positioning information on the user to Tracy's profiling a user and providing a user with location relevant information. One would have been motivated to do this in order to better provide a user with relevant information.

Also, Tracy further discloses electronic coupons:

"(78) FIG. 7C illustrates the use of a comparison function by the portable terminal. This feature is activated by the consumer upon the entry of the customer preference choices discussed above, or in the alternative is automatically activated by the retail facility upon scanning of an item with the scanner 120 display. The feature causes the graphical display 110 to display an identification of the item scanned and its cost. In addition, the display also displays alternative brands and their costs. In the illustrated example, one selection, King's, includes a link with a marker, a star, indicating that an electronic coupon is available for the selected item. Selection of the item for a buy would automatically download the electronic coupon into the customer's transaction file. In the event the item is scanned for return, the electronic coupon is deleted from the consumer's data file" (col 10, line 60-col 11, line 10).

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Tracy further discloses tracking the user history, preferences, interests. Tracy further discloses wireless or radio communications for transmitting electronic coupons to portable terminals:

“[Claim] 1. A system for presenting an item of information to a customer corresponding to a selected product having an associated machine coded label, said system comprising: a product information file including the item of information corresponding to the selected product: a portable terminal having an integrated machine code reader for reading the machine coded label, a display and a wireless radio:

a product information discriminator for selecting the item of information from the product information file corresponding to the selected product and delivering the item of information to the display of the portable terminal upon the reading of the machine coded label on the selected item with the machine code reader on the portable terminal, whereby the reading of the machine coded label on the selected item with the machine code reader on the portable terminal results in the presentation of the item of information to the customer using the portable data terminal; and a deactivation controller for deactivating the product information discriminator from delivering the item of information to the display of the portable terminal.

[Claim] 2. The system of claim 1 further comprising a customer data file including a list of products relating at least in part to a customer's prior purchasing history, and the customer data file and the product information file are stored on a central controller coupled to a radio access point for communicating with

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the portable terminal over a wireless communication network.

[Claim] 9. The system of claim 2 wherein the item of information is a discount coupon.”

Additionally, Vela discloses that the access point for a certain marketing area requests an identification of the portable terminal when a portable terminal enters the marketing area of an access point (col 18, lines 5-col 19, line 25; col 16, lines 35-60). Notice in these citations that each portable terminal is uniquely identified and tracked and that when a portable terminal enters a new marketing area that the portable terminal is identified and that it is then determined whether that particular portable terminal has any items of interest in that particular marketing area. Also, note that different access points cover different marketing areas/zones/subdivisions (Abstract; Figures 5, 6, 7, 11; col 36, line 63-col 37, line 11).

Vela further discloses tracking the successively moving location of the radio portable terminal (col 18, lines 46-69).

Tracy discloses checking whether a particular portable terminal is to receive electronic coupons or not (col 9, line 5-col 10, line 10; col 9, lines 25-30).

Tracy discloses that electronic coupons can be sent or download to a radio base station (col 8, line 64-col 10, line 39; col 9, lines 25-30). Also, Tracy discloses that the information is automatically sent/downloaded to a portable terminal after it is determined if that particular portable terminal is to receive that particular type of information or not (col 10, lines 9-33; col 9, lines 25-30; col 11, lines 1-10; col 14, lines 35-67). Also, note that Vela discloses the utilization of Tracy's features based upon different areas/zones of the store (see rejection above).

Claim 5: Tracy and Vela disclose the system of the claim 2, and Tracy further discloses that the first communication unit of the radio base station is also configured to send a fifth request message requesting a notification of a display contents description format to the radio portable terminal through the radio LAN, and to receive a fifth response message notifying the display contents description format from the radio portable terminal through the radio LAN in response to the fifth request message; and the processing unit of the radio base station is also configured to carry out processing for sending the electronic coupon that contains display contents described by the display contents description format notified by the fifth response message, to the radio portable terminal (col 11, lines 23-28; col 2, lines 1-5; col 11, lines 37-40).

Claim 6, 21: Tracy and Vela disclose the system, device of claim 5, 20, and Tracy further discloses that the second communication unit of the radio base station is also configured to send to the server device a sixth request message containing the terminal identifier notified by the first response message and the display contents description format notified by the fifth response message and requesting a transmission of data of the electronic coupon to be sent to the radio portable terminal of the terminal identifier notified by the first response message, when the radio portable terminal of the terminal identifier notified by the first response message is the electronic coupon sending/collecting target, and to receive a sixth response message containing the data of the electronic coupon from the server device in response to the sixth request message; the communication unit of the server device is also configured to receive the sixth request message from the radio base station and to send the sixth response message to the radio base station in response to the sixth request message;

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the coupon processing unit of the server device is also configured to determine a coupon identifier of the electronic coupon to be sent to the radio portable terminal of the terminal identifier contained in the sixth response message, and to produce the sixth response message containing the data of the electronic coupon of the coupon identifier that contains display contents described by the display contents description format contained in the sixth request message (col 11, lines 23-28; col 2, lines 1-5; col 11, lines 37-40).

Claim 7: Tracy and Vela disclose the system of claim 2, and Tracy further discloses the processing unit of the radio base station is also configured to carry out processing for sending the electronic coupon that contains at least a coupon identifier for uniquely identifying the electronic coupon and display contents regarding the electronic coupon (col 11, lines 23-28; col 2, lines 1-5; col 11, lines 37-40). Tracy further discloses a coupon identifier (col 9, lines 26-28; col 12, lines 50-55; col 13, lines 1-5). Electronic coupons and coupon tracking and management imply a way to identify the coupon.

Claim 8: Tracy and Vela disclose the system of claim 7, and Tracy further discloses the processing unit of the radio base station is also configured to carry out processing for sending the electronic coupon that also contains a control information regarding a use of the electronic coupon (col 12, lines 60-68).

Claim 9: Tracy and Vela disclose the system of claim 7, and Tracy further discloses the processing unit of the radio base station is also configured to carry out processing for sending the electronic coupon that also contains an electronic signature obtained by encrypting at least a portion of data of the electronic coupon that should be protected from alteration, by using a

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secret key that is maintained in the radio base station and/or the server device (col 6, lines 20-25).

Claim 10: Tracy and Vela disclose the system of claim 7, and Tracy further discloses that the processing unit of the radio base station is also configured to carry out processing for sending the electronic coupon that also contains an electronic signature obtained by encrypting at least a portion of data of the electronic coupon that should be protected from alteration and the terminal identifier of the radio portable terminal, by using a secret key that is maintained in the radio base station and/or the server device (col 6, lines 20-25).

Claim 11: Tracy and Vela disclose the system of the claim 2, and Tracy further discloses that the first communication unit of the radio base station is also configured to send a seventh request message requesting information of the electronic coupon to be collected by the radio base station to the radio portable terminal through the radio LAN, and to receive a seventh response message containing at least first information necessary in identifying the electronic coupon to be collected and second information necessary in verifying validity of the electronic coupon to be collected, from the radio portable terminal through the radio LAN; and the second communication unit of the radio base station is also configured to send to the server device an eighth request message containing at least the first information and the second information contained in the seventh response message and requesting a verification of the validity of the electronic coupon to be collected, and to receive an eighth response message containing a result of the verification from the server device in response to the eighth request message;

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the communication unit of the server device is also configured to receive the eighth request message from the radio base station and to send the eighth response message to the radio base station in response to the eighth request message;

the coupon processing unit of the server device is also configured to verify the validity of the electronic coupon to be collected according to the first information

and the second information contained in the eighth request message, and to produce the eighth response message containing the result of the verification; and

the processing unit of the radio base station is also configured to command the radio portable terminal to delete data of the electronic coupon to be collected through the radio LAN, when the result of the verification notified by the eighth response message indicates that the validity of the electronic coupon to be collected is confirmed (col 12, line 50-col 13, line 56).

Tracy does not explicitly disclose deleting coupons after using them.

However, Tracy discloses using coupons and managing coupon use as disclosed above. Tracy further discloses deleting coupons (col 11, lines 5-9).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add Tracy's deleting coupons to Tracy's using coupons and managing coupon use. One would have been motivated to do this because deleting a coupon after use prevents the inappropriate, multiple use of the same coupon over and over again.

Claim 12: Tracy and Vela disclose the system of claim 11, and Tracy further discloses a register device configured to execute a transaction for a user of the radio portable terminal; wherein the coupon processing unit of the server device is also configured to command the register device to provide a service corresponding to the electronic coupon to be collected when

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the validity of the electronic coupon to be collected is confirmed (col 13, lines 1-11; col 12, lines 62-66).

Claim 13: Tracy and Vela disclose the system of claim 11, and Tracy further discloses that the second information contained in the seventh response message and the eighth request message includes an electronic signature obtained by encrypting at least a portion of data of the electronic coupon that should be protected from alteration, by using a secret key that is maintained in the server device, and data required for verifying the electronic signature; and the coupon processing unit of the server device is also configured to verify the validity of the electronic coupon to be collected by verifying the electronic signature (col 13, lines 1-11; col 12, lines 62-66; col 6, lines 20-25).

Claim 14: Tracy and Vela disclose the system of claim 11, and Tracy further discloses that the second information contained in the seventh response message and the eighth request message includes an electronic signature obtained by encrypting at least a portion of data of the electronic coupon that should be protected from alteration and the terminal identifier of the radio portable terminal, by using a secret key that is maintained in the server device, and data required for verifying the electronic signature; and the coupon processing unit of the server device is also configured to verify the validity of the electronic coupon to be collected by verifying the electronic signature (col 13, lines 1-11; col 12, lines 62-66; col 6, lines 20-25).

Claim 15: Tracy and Vela disclose the system of claim 11, and Tracy further discloses that the processing unit of the radio base station is also configured to carry out processing for

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collecting the electronic coupon that is currently displayed on a display screen of the radio portable terminal (col 6, lines 25-51).

Claim 16: Tracy and Vela disclose the system of claim 2, and Tracy further discloses that the first communication unit of the radio terminal device is configured to send the first request message to the radio portable terminal that has moved into a covered area of the radio terminal device;

the second communication unit of the radio base station is also configured to receive data or coupon identifiers of electronic coupons to be sent to the radio portable terminal from the server device in response to the second request message;

the coupon processing unit of the server device is configured to check whether the radio portable terminal of the terminal identifier contained in the second request message is the electronic coupon sending/collecting target or not by referring to information regarding the terminal identifier of the radio portable terminal contained in the second request message, to determine the electronic coupons to be sent to the radio portable terminal that is the electronic coupon sending/collecting target, and to judge whether each electronic coupon to be sent has been sent to the radio portable terminal within a prescribed period of time by referring to information registering the terminal identifier of the radio portable terminal, coupon identifiers indicating electronic coupons that have already been sent to the radio portable terminal and information on times at which the electronic coupons that have already been sent to the radio portable terminal were sent; and the communication unit of the server device is also configured to send the data or the coupon identifiers of only those electronic coupons to be sent that are judged as not having been sent to the radio portable terminal within the prescribed period of time, to the radio base

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station in response to the second request message (col 10, lines 44-col 11, line 9; col 18, lines 13-21; col 4, lines 23-28). Also, please note that time is related to location or aisle specific messages because it the shopper will only be in that aisle for a limited amount of time.

Claim 22: Tracy and Vela disclose the device of claim 19, and Tracy further discloses that the processing unit of the radio portable terminal device is also configured to carry out a processing for using any stored electronic coupon that is currently displayed on the display screen by the display unit, and to delete data of any stored electronic coupon that is currently displayed on the display screen from the storage unit, upon receiving a third request message commanding a deletion of the data of a used electronic coupon (col 12, lines 50- col 13, line 11; col 11, lines 5-9).

Claim 25, 30: Tracy and Vela disclose the system of claim 24, and Tracy further discloses that each radio base station also has:

a processing unit configured to make a judgment as to whether the radio portable terminal that has moved into the covered area of said each radio base station is staying in the covered area of said each radio base station for over a prescribed period of time or not; wherein the second communication unit of each radio base station is configured to notify the terminal identifier received by the first communication unit only when the processing unit judges that the radio portable terminal that has moved into the covered area of said each radio base station is staying in the covered area of said each radio base station for over a prescribed period of time (col 10, lines 44-col 11, line 9; col 18, lines 13-21; col 4, lines 23-28; col 12, lines 60-65; col 14, lines 29-35; col 13, lines 55-62). Also, please note that time is related

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to location or aisle specific messages because if the shopper will only be in that aisle for a limited amount of time.

Claim 26: Tracy and Vela disclose the system of claim 25, and Tracy further discloses the processing unit of each radio base station is configured to make the judgement repeatedly, and the second communication unit of each radio base station is configured to notify the terminal identifier received by the first communication unit whenever the processing unit judges that the radio portable terminal that has moved into the covered area of said each radio base station is staying in the covered area of said each radio base station for over a prescribed period of time (col 10, lines 44-col 11, line 9; col 18, lines 13-21; col 4, lines 23-28; col 12, lines 60-65; col 14, lines 29-35; col 13, lines 55-62).

Claim 27: Tracy and Vela disclose the system of claim 24, and Tracy further discloses that the management unit of the server device is configured to record and manage the management information that also contains a time information indicating a time at which the radio portable terminal is detected in the covered area of said each radio base station (col 14, lines 29-35; col 13, lines 55-62).

Claim 31, 32, 34: Tracy and Vela disclose the system of claim 28.

Tracy does not explicitly disclose where radio base stations are located.

However, Tracy further discloses multiple radio base stations (col 5, lines 50-56) and providing direction/location information to service units (col 7, lines 5-17) and providing location information of items (col 10, lines 49-55) and that radio base stations can be in different stores (col 6, lines 7-14) keeping track of service desk locations (col 11, lines 53-58) identifying the location of all store shoppers and employees (col 12, lines 45-50) providing the locations of

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service centers (col 12, lines 63-67) and providing item information and location based upon shopper activity history (col 14, lines 18-29; col 14, lines 54-65) and providing location of items based upon other items of interest to the user (col 16, lines 43-54) and that the store goods in the store are organized intelligently in terms of their placement (col 15, lines 1-8; col 15, line 65-col 16, line 3) and providing location specific messages to the user (col 18, lines 13-21).

Tracy further discloses a service station located at a doorway of the facility (col 6, line 65-col 7, line 5).

Therefore, it would be obvious of Trace to place radio base stations at corners of the facility to make sure the entire facility is covered or to place a radio base station near the entrance to make sure that service is available upon entry or exit or to place the radio base station near the register device to make sure that service is available when using the register device.

Claim 33. Tracy and Vela disclose the system of claim 32, wherein the management information contains at least the terminal identifier of the radio portable terminal of the user, the location information indicating a corner at which said each radio base station is arranged (see the rejection of the Independent and dependent claims above), a time information indicating a time at which the radio portable terminal is detected in the covered area of said each radio base station (col 10, lines 44-col 11, line 9; col 18, lines 13-21; col 4, lines 23-28; col 12, lines 60-65; col 14, lines 29-35; col 13, lines 55-62), and a product information regarding products purchased by the user that is entered from a register device for executing a transaction for the user of the radio portable terminal (col 14, lines 18-29; col 14, lines 54-65; col 16, lines 43-54).

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Claim 36: Tracy and Vela disclose the system of claim 35, and Tracy further discloses that the management information also contains information regarding electronic coupons sent to a radio portable terminal of each terminal identifier and information regarding electronic coupons collected from a radio portable terminal of each terminal identifier (col 12, line 50-col 13, line 11).

4. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tracy (5,979,757) in view of Vela (4,882,724) in view of Murdock (4,189,730).

Claim 18: Tracy discloses the radio base station device of claim 17. Tracy further discloses multiple radio base stations and multiple portable devices (col 5, lines 48-56) and multiple facilities (Fig. 1).

Tracy does not explicitly disclose a radio shielding unit configured to shield radio signals from at least one direction.

However, Murdock discloses radio shielding unit configured to shield radio signals from at least one direction (col 1, lines 23-27).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add Murdock's shielding radio signals to Tracy's multiple radio base stations in a facility and multiple radio stations in multiple facilities. One would have been motivated to do this so that interference from other radio signals can be reduced.

Response to Arguments

5. Applicant's arguments with respect to claims 1-39 have been considered but are not found persuasive.

On page 26 of the Applicant's Remarks/Arguments dated 5/22/2006, Applicant states:

"Applicants note that although the portable terminal 12 of Tracy transmits the terminal identifier to the central host as recognized in the Office Action, Tracy completely fails to disclose or suggest any teaching for automatically requesting a notification of the terminal identifier of the portable terminal 12 (corresponding to the claimed radio portable terminal") by an initiative of the access point 13 (corresponding to the claimed radio base station") upon detecting an entry of the portable terminal 12 into a covered area of the access point 13. The transmission of the terminal identifier by the portable terminal 12 of Tracy is not carried out in response to any requests from the access point 13."

Similarly, on page 29 Applicant states, "Tracy completely fails to disclose or suggest any teaching for automatically requesting a notification of the terminal identifier of the portable terminal 12 (corresponding to the claimed radio portable terminal") by an initiative of the access point 13 (corresponding to the claimed radio base station") upon detecting an entry of the portable terminal 12 into a covered area of the access point 13."

However, Vela discloses that the access point for a certain marketing area requests an identification of the portable terminal when a portable terminal enters the marketing area of an access point (col 18, lines 5-col 19, line 25; col 16, lines 35-60). Notice in these citations that each portable terminal is uniquely identified and tracked and that when a portable terminal enters a new marketing area that the portable terminal is identified and that it is then determined

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whether that particular portable terminal has any items of interest in that particular marketing area. Also, note that different access points cover different marketing areas/zones/subdivisions (Abstract; Figures 5, 6, 7, 11; col 36, line 63-col 37, line 11).

Also, it would be obvious that the indications for what types of communications to send or not send a particular user of Tracy (col 9, lines 15-55) can be combined with the zoned coverage area and zoned or particular coverage area information sending and position or area tracking of Vela such that particular types of information is sent to particular users when that user is in particular areas. One would be motivated to do this in order to better send information of interest to a user. Also, again, note that since particular information is being sent to particular users, that user identification is needed whenever a user enters an area into which information can be sent to a user. The particular user needs to be identified so that it can be determined whether or not or what types of information to send that particular user.

On page 26, Applicant states, "Tracy completely fails to disclose or suggest any teaching for automatically requesting a check of whether the radio portable terminal is an electronic coupon sending/collecting target or not to a server device by an initiative of the radio base station upon receiving the notification from the radio portable terminal."

However, Tracy discloses checking whether a particular portable terminal is to receive electronic coupons or not (col 9, line 5-col 10, line 10; col 9, lines 25-30).

On page 27, Applicant states, "Tracy also completely fails to disclose or suggest automatically carrying out processing for sending/collecting the electronic coupon by an initiative of the radio base station upon receiving the result of the check from the server device."

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However, Tracy discloses that electronic coupons can be sent or download to a radio base station (col 8, line 64-col 10, line 39; col 9, lines 25-30). Also, Tracy discloses that the information is automatically sent/downloaded to a portable terminal after it is determined if that particular portable terminal is to receive that particular type of information or not (col 10, lines 9-33; col 9, lines 25-30; col 11, lines 1-10; col 14, lines 35-67). Also, note that Vela discloses the utilization of Tracy's features based upon different areas/zones of the store (see rejection above).

On page 31, Applicant states that the combination of the prior art does not render obvious tracking the successively moving location of the radio portable terminal.

However, Vela discloses tracking the successively moving location of the radio portable terminal (col 18, lines 46-69).

Also, Examiner further notes that it is the Applicant's claims as stated in the Applicant's claims that are being rejected with the prior art. Also, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). And, Examiner notes that claims are given their broadest reasonable construction. See *In re Hyatt*, 211 F.3d 1367, 54 USPQ2d 1664 (Fed. Cir. 2000).

Examiner notes that while specific references were made to the prior art, it is actually also the prior art in its entirety and the combination of the prior art in its entirety that is being referred to. Also, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arthur Duran whose telephone number is (571) 272-6718. The examiner can normally be reached on Mon- Fri, 8:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Stamber can be reached on (571) 272-6724. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Arthur Duran
Primary Examiner
6/13/2006